

# ALTO Server Discovery

IETF#85, Atlanta, 2012-11-07

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# Outline

1. Recap, document history, architecture
2. draft-ietf-alto-server-discovery-05
  - WG document –
3. draft-kist-alto-3pdisc-01
  - individual contribution –

# Recap (1)

ALTO server discovery mechanisms need to support two scenarios:

- Resource consumer initiated discovery  
(Requirement AR-32 in RFC 6708)
- Third-party discovery  
(Requirement AR-33 in RFC 6708)





# Recap (2)

- Resource consumer initiated discovery
  - Used if ALTO client is embedded into resource consumer
  - May query user, read local configuration file, or use mechanisms specific to the access network (e.g., DHCP)
  - Could be seen as a special case of 3<sup>rd</sup> party discovery (do a lookup on your own IP address). If there were simple mechanisms for 3<sup>rd</sup> party discovery ...
- Third-party discovery
  - Used if ALTO client is embedded into 3<sup>rd</sup> party, e.g., P2P tracker
  - In tracker-based systems, ALTO should be done in the tracker, not in the client for good optimization results (see Section 4.1 of draft-ietf-alto-deployments)
  - Client's IP address is only input parameter
  - Proposed mechanism is based on reverse DNS lookup (PTR lookup)
    - issues/headaches with deployment scenarios, IPv6, IETF DNS experts, etc.

# Documents History

res.c. initiated disc.

3<sup>rd</sup> party discovery

draft-song-alto-  
server-discovery  
-00 .. -03

draft-kiesel-  
alto-3pdisc  
-00 .. -03

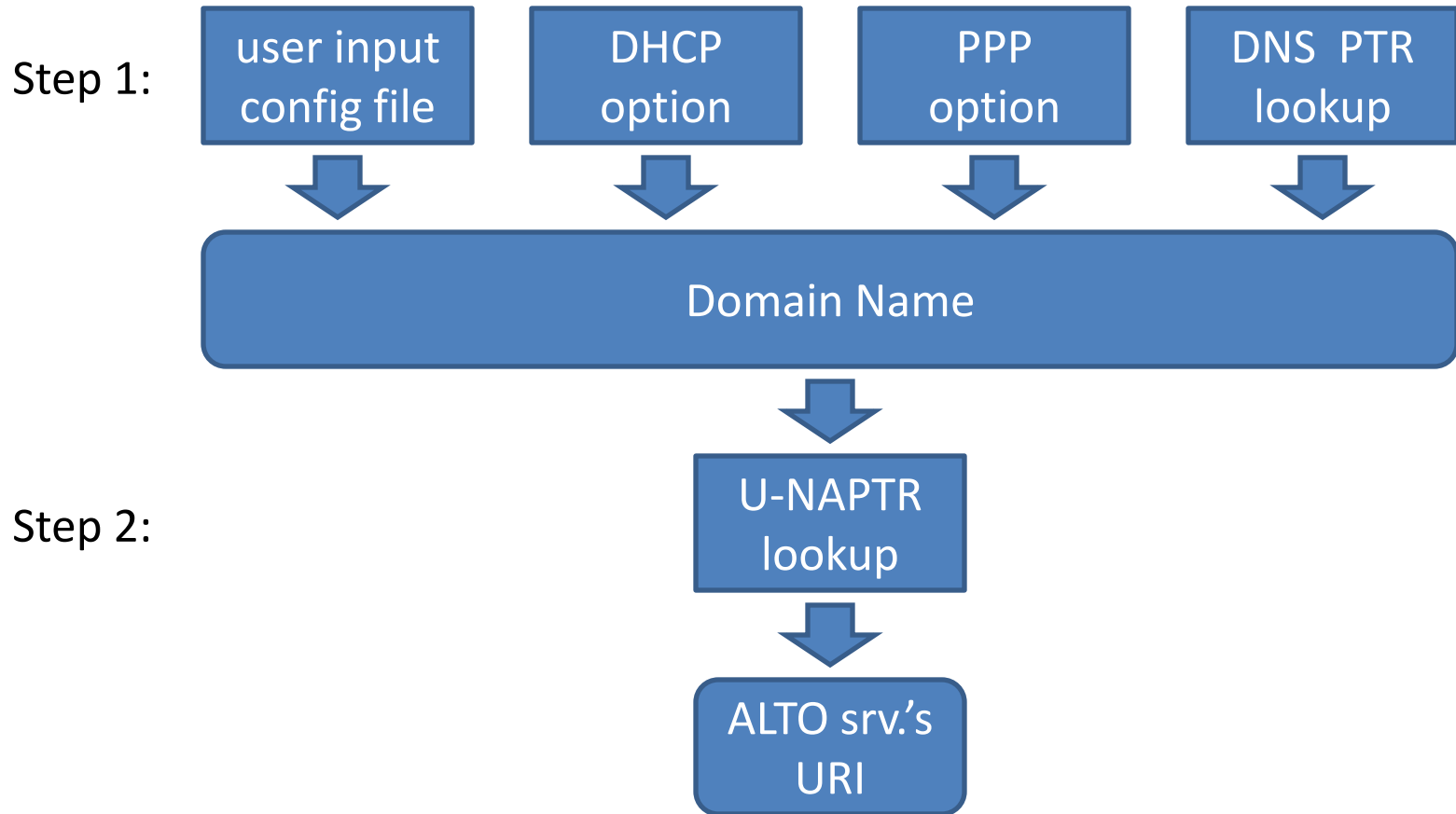
draft-kiesel-  
alto-3pdisc  
-04 .. -05

draft-ietf-alto-  
server-discovery  
-00 .. -03

draft-ietf-alto-  
server-discovery  
-04 .. -05

draft-kist-  
alto-3pdisc  
-00 .. -01

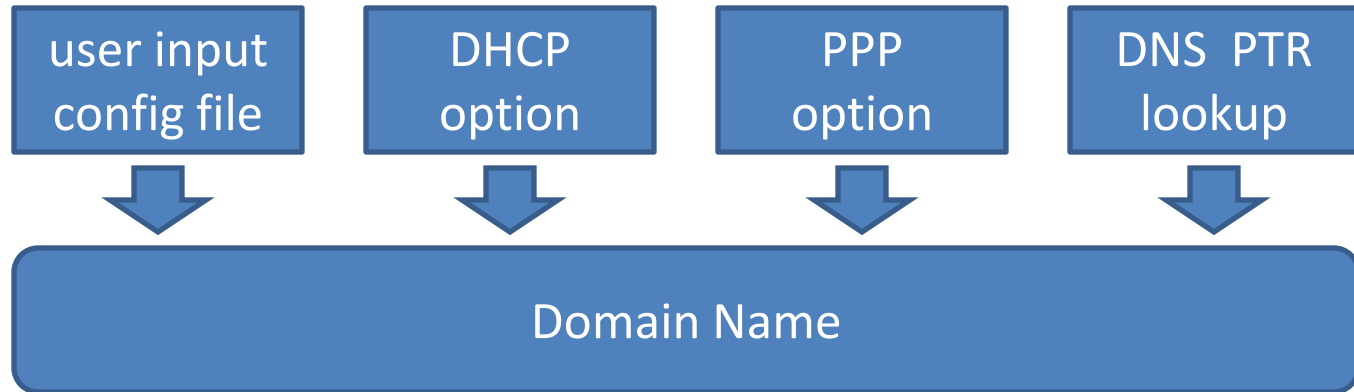
# one architecture – two drafts



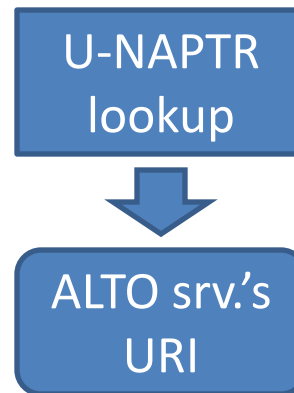


# one architecture – two drafts

Step 1:

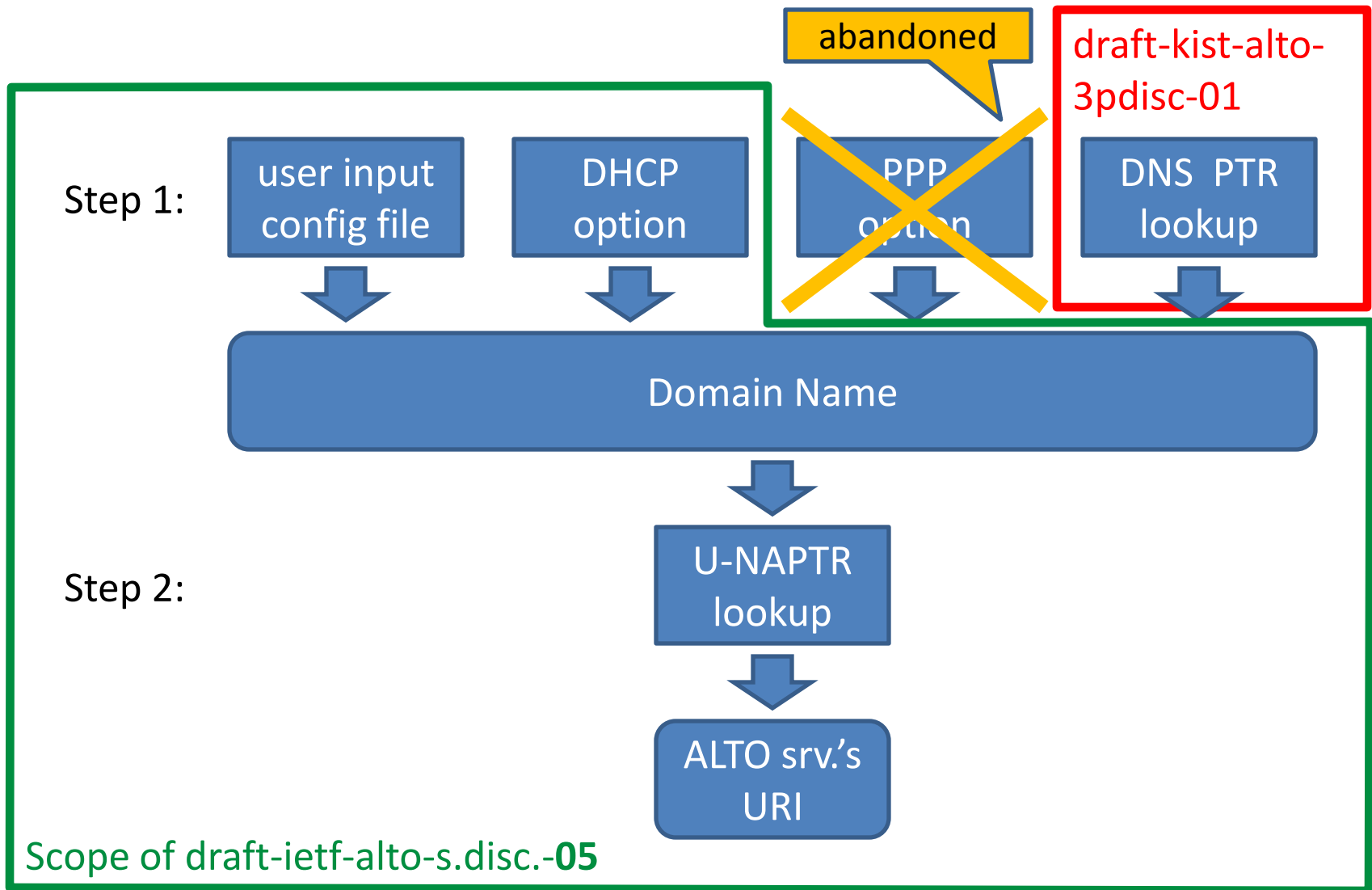


Step 2:



Scope of draft-ietf-alto-s.disc.-03  
Reverse DNS issues threatened  
to block whole document

# one architecture – two drafts



# ALTO Server Discovery

draft-ietf-alto-server-discovery-05

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# draft-ietf-alto-server-discovery-05

- WG document
- “The easy parts”, **fulfills only AR-32, not AR-33!**
- Changes since -04
  - Significant document cleanup
    - Leave motivation and architectural considerations up to the requirements and deployment considerations documents
    - Remove leftover text from 3<sup>rd</sup> party discovery
  - Remove PPP option
    - Adding new options to PPP not a good way forward
    - DHCP considered even in PPP networks
    - Leaves manual configuration and DHCP
- Stable specification, **next step: WGLC**

# Third-Party ALTO Server Discovery

draft-kist-alto-3pdisc-01

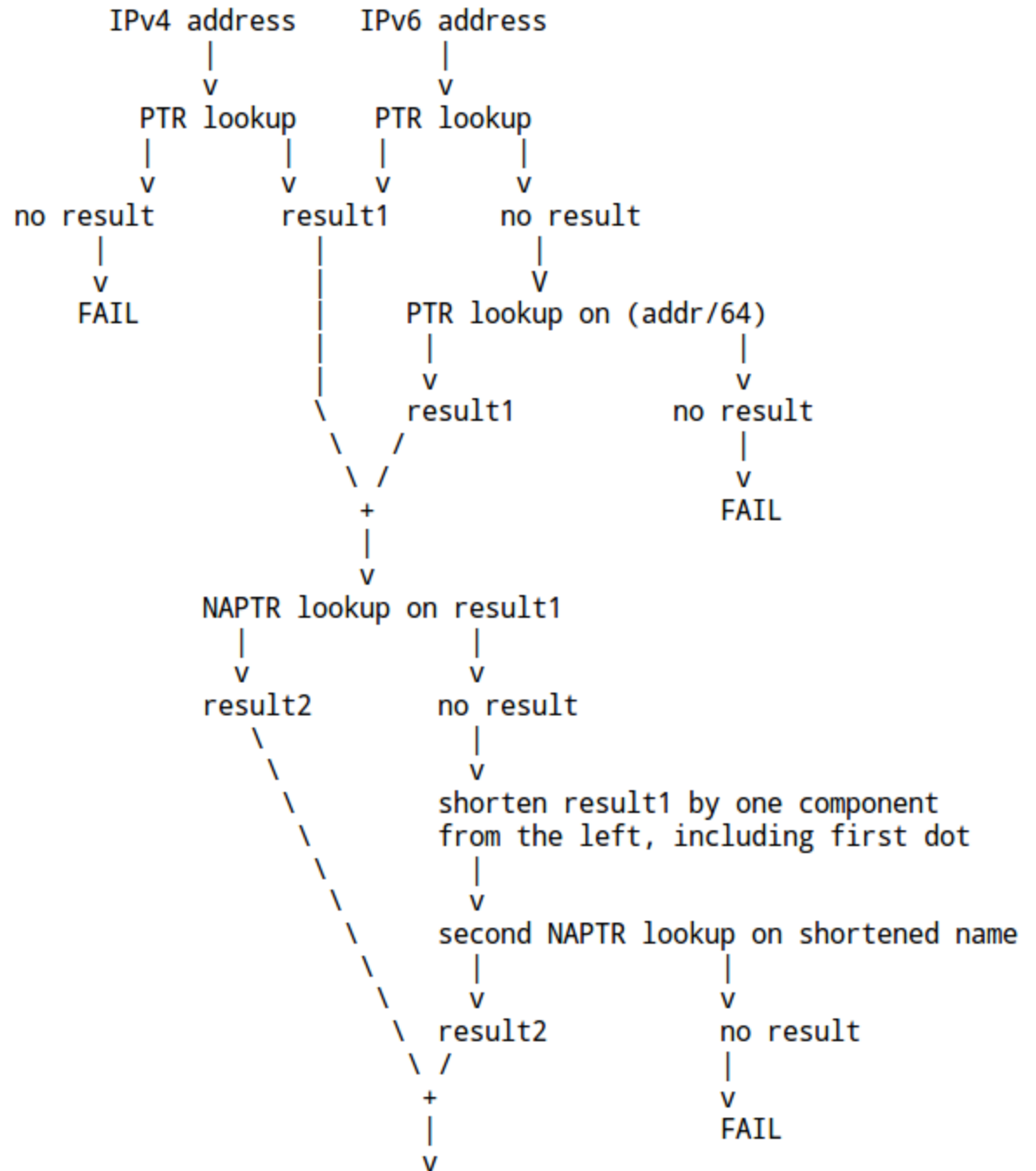
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# draft-kist-alto-3pdisc-01

- Individual draft, again
- The more controversial, DNS PTR lookup based 3<sup>rd</sup> party discovery part, fulfills AR-33 (and AR-32)
- Changes since -00
  - Significant document cleanup
  - Add flow chart to illustrate the algorithm  
TBD: Textual specification of algorithms in flow chart

draft-  
kist-alto-  
3pdisc-01



Third-party ALTO server discovery procedure's output is: result2

# draft-kist-alto-3pdisc-01

- Individual draft, again
- The more controversial, DNS PTR lookup based 3<sup>rd</sup> party discovery part, fulfills AR-33 (and AR-32)
- Changes since -00
  - Significant document cleanup
  - Add flow chart to illustrate the algorithm  
TBD: Textual specification of algorithms in flow chart
- Next steps
  - Further exploration of problem and solution spaces
  - Designed as “plugin” to the other discovery document  
→ may update RFC ... in the future
  - Is ALTO WG interested in solving AR-33 at all?



# Acknowledgments

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